

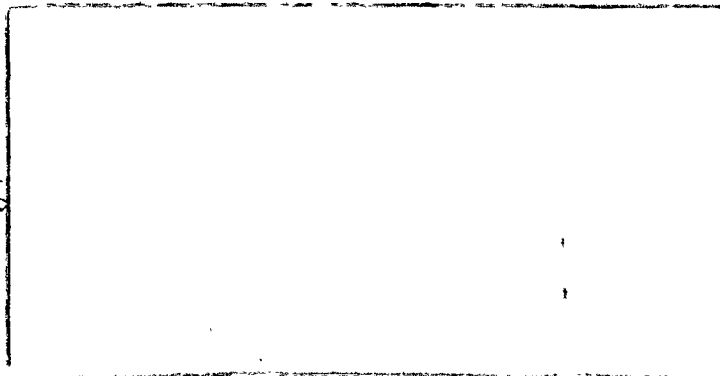
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## BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS

No. 23, January - March 1976

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Defense Advanced  
Research Projects Agency

DARPA Order No. 3097, Amendment 1

September 15, 1976

DARPA Order No. 3097, Amendment 1  
Program Code No. 6L10, Program Element Code 62711E  
Name of Contractor:  
Informatics Inc.  
Effective Date of Contract:  
March 16, 1976  
Contract Expiration Date:  
September 17, 1976  
Amount of Contract: \$109,724

Contract No. MDA-903-76C-0254  
Principal Investigator:  
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Short Title of Work:  
"Soviet Lasers"

This research was supported by the Defense Advanced Research Projects Agency and was monitored by the Defense Supply Service - Washington, under Contract No. MDA-903-76C-0254. The views and conclusions contained in this document are those of the author and should not be interpreted as necessarily representing the official policies, either express or implied, of the Defense Advanced Research Projects Agency or the United States Government.

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS, No. 23, JANUARY - MARCH 1976. <i>Number</i>		5. TYPE OF REPORT (and Period Covered) Scientific ... Interim <i>no. 23</i>
7. AUTHOR(s) Stuart G. Hibben, Carl Minkus		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS Informatics Inc. 6000 Executive Boulevard Rockville, Maryland 20852		8. CONTRACT OR GRANT NUMBER(s) MDA 903-76C-0254, <i>15</i> DARPA Order - 3497
11. CONTROLLING OFFICE NAME AND ADDRESS Defense Advanced Research Projects Agency/TAO 1400 Wilson Boulevard Arlington, Virginia 22209		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS DARPA Order No. 3097, Amdt. 1. Program Code No. 6L10, Prog. El. Code 6271-1-E
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) Defense Supply Service - Washington Room 1D245, Pentagon Washington, D. C. 20310		12. REPORT DATE 15 September 1976
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		13. NUMBER OF PAGES 142
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		15. SECURITY CLASS. (of this report) UNCLASSIFIED
18. SUPPLEMENTARY NOTES		
19. KEY WORDS Solid State Lasers, Liquid Lasers, Gas Lasers, Chemical Lasers, Laser Components, Nonlinear Optics, Spectroscopy of Laser Materials, Ultrashort Pulse Generation, Crystal Growing, Gamma Lasers, Laser Theory, Laser Biological Effects, Laser Communications, Laser Computer Technology, Holography, Laser Chemical Effects, Laser Measurement Applications, Laser Parameters, Laser Beam-Target Interaction, Laser Plasma		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This is the Soviet Laser Bibliography for the first quarter of 1976 and is No. 23 in the series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; crystal growing; theoretical aspects of advanced lasers; and general laser theory. Laser applications are listed under biological effects; communications; computer technology; holography; laser-induced chemical reactions; instrumentation and measurements; beam-target interaction; and plasma generation and diagnostics.		

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## Introduction

This bibliography has been compiled by the staff of Informatics Inc. in response to a continuing contractual assignment to monitor current Soviet-bloc developments in the quantum electronics field. Of all material reviewed, the major yield has been from the approximately 30 periodicals which are known to report the most advanced and interesting findings in Soviet laser technology.

The period covered is the first quarter of 1976, and includes all significant laser-related articles received by us during that interval. The structure and selection criteria are basically those used in the preceding reports.

For convenience we have abbreviated frequently cited source names; a source abbreviation list and an author index are included. Unless indicated by a parenthesized (RZh, KL) notation, all cited sources are available at Informatics Inc. The numbers in parentheses following the authors' names in the text refer to the Cumulative Affiliations List which includes all author affiliations from 1969 to the present.

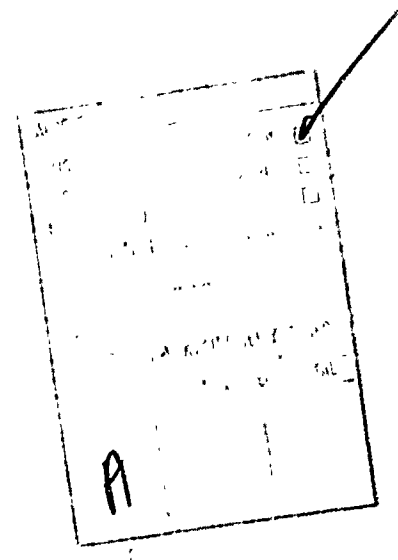


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## I. BASIC RESEARCH

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## C. GAS LASERS

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#### 4. Theory

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D. CHEMICAL LASERS

1.  $F_2 + H_2(D_2)$

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#### IV. SOURCE ABBREVIATIONS

BAPS	-	Bulletin de l'Academie Polonaise des Sciences. Serie des Sciences Techniques
DAN Arm	-	Akademiya nauk Armyanskoy SSR. Doklady
DAN SSSR	-	Akademiya nauk SSSR. Doklady
DAN Tadzh	-	Akademiya nauk Tadzhikskoy SSR. Doklady
DAN Ukr	-	Akademiya nauk Ukrayins'koyi RSR. Dopovidi
DBAN	-	Bulgarska akademiya na naukite. Doklady
EOM	-	Elektronnaya obrabotka materialov
FAiO	-	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana
FGiV	-	Fizika gorennya i vzryva
FiKhOM	-	Fizika i khimiya obrabotka materialov
FTP	-	Fizika i tekhnika poluprovodnikov
FTT	-	Fizika tverdogo tela
IAN B	-	Akademiya nauk Belorusskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
IT	-	Izmeritel'naya tekhnika
IVUZ Fiz	-	Izvestiya vysshikh uchebnykh zavedeniy. Fizika
IVUZ Geol	-	Izvestiya vysshikh uchebnykh zavedeniy. Geologiya i razvedka
IVUZ Mash	-	Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye
IVUZ Priboro	-	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye
IVUZ Radioelektr	-	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
KE	-	Kvantovaya elektronika
KhVE	-	Khimiya vysokikh energiy
KL	-	Knizhnaya letopis'
KLDV	-	Knizhnaya letopis'. Dopolnitel'nyy vypusk

KSpF	-	Kratkiye soobshcheniya po fizike
LC	-	Received at Library of Congress
LZhS	-	Letopis' zhurnal'nykh statey
NM	-	Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy
OiS	-	Optika i spektroskopiya
OMP	-	Optiko-mekhanicheskaya promyshlennost'
Otkr izobr	-	Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki
PTE	-	Pribory i tekhnika eksperimenta
RiE	-	Radiotekhnika i elektronika
RZhF	-	Referativnyy zhurnal. Fizika
RZhFoto	-	Referativnyy zhurnal. Fotokinotekhnika
RZhGeofiz	-	Referativnyy zhurnal. Geofizika
RZhKh	-	Referativnyy zhurnal. Khimiya
RZhMekh	-	Referativnyy zhurnal. Mekhanika
RZhMetal	-	Referativnyy zhurnal. Metallurgiya
RZhRadiot	-	Referativnyy zhurnal. Radiotekhnika
Sb1	-	Sbornik. Kvantovaya i fizicheskaya elektronika. Minsk, 1975.
Sb2	-	Vsesoyuznaya konferentsiya "Lazery na osnove slozhnykh organicheskikh soyedineniy," 1975. Materialy. Minsk, 1975.
Sb3	-	Monokristally i tekhnika, no. 12, Khar'kov, 1975.
Sb4	-	Spektroskopiya kristallov. Moskva, Nauka, 1975.
Sb5	-	Regional'naya shkola-seminar po funktsional'noy mikroelektronike. Ist. Tezisy. Gor'kiy, 1975.
Sb6	-	Kvantovaya elektronika, no. 9, Kiyev, Naukova dumka, 1975.
Sb7	-	Izotopy v SSSR, no. 42, Moskva, Atomizdat, 1975.

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- Sb9 - Problemy tekhniki elektrodinamiki, no. 50, 1975.
- Sb10 - Impul'snaya fotometriya, no. 4, Leningrad, Mashinostroyeniye, 1975.
- Sb11 - Problemy tekhniki elektrodinamiki, no. 45, 1974.
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| Tr2  | - | Saratovskiy politekhnicheskiy universitet. Nauchnyye trudy, no. 78, 1975.  |
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| Tr4  | - | AN SSSR. Fizicheskiy institut. Trudy, no. 83, 1975.  |
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Tr9	-	Moskovskiy institut radiotekhniki, elektroniki i avtomatiki. Trudy, no. 76, 1975.
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Tr11	-	Nauchno-issledovatel'skiy fiziko-khimicheskoy institut. Sbornik nauchnykh trudov, no. 6, 1975.
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Tr13	-	Moskovskiy institut radiotekhniki, elektroniki i avtomatiki. Trudy, no. 78, 1975.
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TVT	-	Teplofizika vysokikh temperatur
UFN	-	Uspekhi fizicheskikh nauk
UFZh	-	Ukrainskiy fizicheskiy zhurnal
ZhETF	-	Zhurnal eksperimental'noy i teoreticheskoy fiziki.
ZhETF P	-	Pis'ma v Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhFKh	-	Zhurnal fizicheskoy khimii
ZhNiPfiK	-	Zhurnal nauchnoy i prikladnoy fotografii i kinematografii
ZhPMTF	-	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki
ZhPS	-	Zhurnal prikladnoy fiziki
ZhTF	-	Zhurnal tekhnicheskoy fiziki
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342. Scientific Research, Design and Technological Institute of Heavy Machine Building, Ural Heavy Machinery Plant (NI konstruktorsko-tekhnologicheskoye institut tyazhelogo mashinostroyeniya Ural'skogo zavoda tyazhelogo mashinostroyeniya, NIITyZhMASH Uralmashzavoda).
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344. All-Union Scientific Research Institute of Economics of Mineral Raw Materials and Geological Exploration (VNII ekonomiki mineral'nogo syr'ya i geologorazvedochnykh rabot, VIEMS).
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355. All-Union Correspondence Institute of Mechanical Engineering (Vsesoyuznyy zaochnyy mashinostroitel'nyy institut).
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